



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/709,340      | 11/13/2000  | John G. Gruber       | 08-887817US         | 4411             |

7590 03/03/2004

Gowling Lafleur Henderson LLP  
Suite 2600  
160 Elgin Street  
Ottawa, ON K1P 1C3  
CANADA

EXAMINER

PALADINI, ALBERT WILLIAM

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2125

H

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/709,340

Applicant(s)

GRUBER, JOHN G.

Examiner

Albert W Paladini

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Line 5 on page 7 states "if no, determine if U and A converge." Since, as shown on lines 11-12 on page 5,  $U = 1 - A$ , the only condition which will allow U and A to converge is if the availability A and unavailability U are 50 % or 0.5. It is unknown if the MTTR and MTTF parameters will result in this convergence for all failure rates and repair rates stipulated. This condition cannot be known in advance.

Appropriate correction and clarification is required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### **Claim 1**

Line 6, which recites, "(c) selecting a connection between two network source and sink nodes," is not understood. There would not be a single connection between two source nodes and two sink nodes.

Lines 13-14, which recite, "until the summed unavailability and availability has been determined to converge." Since, as shown on lines 11-12 on page 5,  $U = 1 - A$ , the only condition which will allow U and A to converge is if the availability A and unavailability U are 50 % or 0.5. It is unknown if the MTTR and MTTF parameters will result in this convergence for all failure rates and repair rates stipulated. This condition cannot be known in advance.

Appropriate correction and clarification is required.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puranik (6003090).

This rejection is made to the extent that the claims are understood.

In figure 3 Puranik discloses the apparatus and in figures 4A, B the methodology for assessing route availability 422 by selecting a connection 408 between a source and sink node, and by determining when failure occurs 414. Puranik states on lines 8-24 in column 2 "According to the present invention, a method and system are provided which determine network availability by taking into account the network topology and the changes thereto. The present invention provides an accurate measurement of the availability of a destination device with respect to a source device by looking at all possible paths between the two devices. This, therefore, means that if a primary path and a redundant path are available between a source device and a destination device, any failure of the primary path will not impact network availability measurement if the network remains available via the redundant path. Further, the present invention accounts for an overlap of the unavailability of individual devices in a path so that unavailability is characterized more as a function of the path as opposed to the individual unavailabilities of the devices on the path. This last aspect, therefore, provides useful information about overall network availability, rather than the availability of isolated devices." Puranik does not explicitly use the term simulation as recited in claims 1 and 6, or the term convergence as recited in claim 1.

The methodology of analyzing network topology in step 406 and choosing a link to analyze in step 40 would be considered a simulation operation to one of ordinary skill in the art. The term convergence was not addressed because it was not understood as explained in paragraphs 1-5.

### **Relevant Prior Art**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ronnen (5699403) discloses a data processing system, which analyzes abnormal conditions occurring in a communications network, which computes conditional probabilities that specified abnormal conditions will result in system or subsystem failure, and which simulates network risks resulting from planned activities.

Art Unit: 2125

Boye (6009079) discloses a method and system for measuring cabling availability using polling techniques where an unsuccessful polling is considered to be the result of a break or unavailability of a link.

Croslin (6327669) discloses a system and method of restoring a network from a failure which includes a mechanism for determining the availability of portions of the restoral routes at the time of network failure to determine whether the portions can be utilized in the implemented restoral route or not. This provides an added degree of flexibility to the system that accounts for changes in network topology and configuration.


Collins (GB2342722) discloses a switching array, which simulates a sequence of interconnection failures within a multi-channel cable.

8. Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (703) 308-2005. The examiner can normally be reached from 7:30 to 3:30 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (703) 308-0538. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

March 1, 2004

  
Albert W. Paladini  
Primary Examiner  
Art Unit 2125